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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,211	04/22/2004	Thomas Hartmann	440874/PALL	5555
23548	7590	11/10/2005	EXAMINER	
LEYDIG VOIT & MAYER, LTD 700 THIRTEENTH ST. NW SUITE 300 WASHINGTON, DC 20005-3960			SAVAGE, MATTHEW O	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/829,211

Applicant(s)

HARTMANN, THOMAS

Examiner

Matthew O. Savage

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 14-25 is/are allowed.
6) ☒ Claim(s) 1-7, and 11-13 is/are rejected.
7) ☒ Claim(s) 8-10 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall '309 in view of Black, Jr. et al.

With respect to claim 1, Pall '309 disclose a method of making a filter element including inserting an end portion of a filter 14 into a liquid bonding material of an end cap 20 (see FIG. 5 and lines 27-43 of col. 11, the liquid bonding material being a molten part of the end cap), inserting a narrow edge (e.g., defined by portions 9 shown in FIGS. 1-2) at an end portion of a core 1 into the liquid bonding material, bonding the end portion of the filter to the end cap (see lines 44-59 of col. 11), and supporting an inner periphery of the end portion of the filter by an outer wall of the core near the bond (see FIG. 5). Pall fails to specify dividing the liquid bonding material and directing liquid bonding material away from the bonding area between the end cap and the end portion of the filter. Black, Jr. et al disclose an analogous method including the step of inserting a narrow edge of an end portion 28 (e.g., defined by portions 42, see FIGS. 4B) of a core member 20 into a liquid bonding material (see lines 22-32 of col. 6), the narrow edge being located adjacent an inner periphery of the filter element 27 (e.g., when part projection 42 faces inwardly and is continuous as described on lines 63-68 of col. 5),

and suggest that such an arrangement facilitates keying of the portion 28 with the end cap 19. It would have been obvious to have modified the end portion of Pall so as to have included a narrow edge arranged as suggested in Black et al in order to facilitate keying of the portion 28 with the end cap. Black, Jr. et al fail to specify the steps of dividing the liquid bonding material and directing liquid bonding material away from the bonding area between the end cap and the end portion of the filter, however, such a step would be inherent in the combination suggested by Pall and Black, Jr., et al since the combination includes a core having an end portion with a narrow edge 42 positioned adjacent an inner periphery of the filter, the narrow edge functioning to divide the liquid bonding material and direct the liquid bonding material away from the bonding area between the end cap and the end portion of the filter.

As to claim 2, Pall discloses inserting the end portion of the filter and end portion of the core into the liquid bonding material simultaneously (see lines 39-43 of col. 11).

Concerning claim 3, Pall fails to specify inserting the filter and end portion of the core into the liquid bonding material at different times, however, such modification is considered nothing more than one of numerous sequences that would have been obvious to one skilled in the art to assemble the filter and would have no significant effect on the outcome of the process.

As to claim 4, the combination of Pall and Black, Jr. et al is capable of directing bonding material away from the end portion of the filter since it includes a narrow edge portion positioned adjacent an inner periphery of the filter.

Regarding claim 5, the combination of Pall and Black, Jr. et al is capable of directing liquid bonding material into an annular recess in the end portion of the core (e.g., when the retainer portions 9 are continuous as described on lines 5-8 of col. 5 of Black, Jr. et al), and solidifying the liquid bonding material in the recess (see lines 22-32 of col. 6 of Black, Jr. et al).

Concerning claim 6, the combination of Pall and Black, Jr. et al include vents (e.g., between the portions 9 of Black, Jr. et al) capable of venting gas.

Regarding claim 7, the combination of Pall and Black, Jr. et al include solidifying bonding material in contact with an interlock arrangement at the end portion of the core (e.g., defined by the portions 32 of Pall or portions 9 of Black, Jr., et al).

As to claim 11, Both Pall and Black, Jr. et al disclose fixing the core to the end cap (see, for example, lines 4-12 of col. 11 of Pall, and lines 33-37 of col. 4 of Black, Jr. et al).

Concerning claim 12, Pall discloses supporting the inner periphery of the filter by arranging the filter and the core such that the inner periphery at the end portion of the filter intimately faces the outer wall of the core (see FIG. 5).

As to claim 13, Pall discloses supporting the inner periphery of the filter by contacting the inner periphery of the end portion of the filter and the outer wall of the core (see FIG. 5).

Claims 8-10 are objected to as being dependent upon a rejected base claim.

Claims 14-25 are allowed.

Pall and Black et al are considered the closest prior art with respect to new independent claims 14 and 19, however, the references fail to teach or suggest the step of not fixing the core to the end cap as recited in claim 14, or the limitation of the outer wall having an inner surface that tapers continuously or in a straight or curved direction radially outwardly from a base to a first end of the outer wall to define the narrow edge at the end portion of the core as recited in claim 19.

Applicant's arguments filed 8-26-05 have been fully considered but they are not persuasive.

Applicant argues that Pall fails to disclose a narrow edge, however, it is held that the edge disclosed by Pall is narrow when compared with axially inner portions of the core. Accordingly, the narrow edge would divide and direct bonding material away from the bonding area between the end cap and end portion of the filter to a greater extent than if the end portion had the same thickness as axially inner portions of the core.

Applicant's argument that Black et al disclose wide flat end surfaces is not agreed with since the end surfaces 42 are narrower than axially inner portions of the core (see FIG. 4B). Applicant's argument that Black et al teach maximizing the surface area of the end portions of the core is noted, however, maximizing bonding area of the core does not exclude the condition of a core having a narrow edge as called for in instant claim 1 (see FIG. 4B). Applicant argues that the surfaces of the end portions disclosed by Black et al will not divide and direct bonding material away from the

bonding area since they are perpendicular to the axis of the core, however, it is held that the end portion 42 will function as recited in instant claim 1 since it has an upwardly facing surface that is curved and would function to divide and direct bonding material away from the bonding area.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Savage
Matthew O Savage
Primary Examiner
Art Unit 1724

mos
November 9, 2005